233 of the ala strap on the inside. However, the rein from the sled is
492 connected directly by means of a wooden buckle to the ends of the ala strap [Fig. 9ff]. The great success of this type of harness is due to the fact that the iron ring does not rub a hole in the reindeer's hide.

A hook called gugaarka is fastened to the girth of the lead reindeer on the right side, and over this is thrown the rein in order that it may not drag along the ground [Fig. 9As]; this gugaarka may be of bone [Fig. 9s] or of iron, encrusted with either silver or copper, and hung with rings [Fig. 9t], and it is an ornament among the youth of the area [Facing 192: Figure 9 on an unpaginated unfolding insert] [193] valued at one reindeer (twenty-five to thirty rubles). The bone gugaarka are preferred by hunters, since the metal ones frighten the wild reindeer with their jingling. On the left side of the girth is fastened either a wooden or a bone plate, through the two openings of which is passed a loop made out of rope, which is connected by means of the ahaan b'a thong with the halter of another reindeer of the team. The rein--called pobotuok--is a long strap made of hide, about two centimeters in width, and terminating either in a loop--which is slipped over the kiraapiik hook to hold the rein in place, or onto the iron buckle of the ring--or in a small wooden stick, which is passed through the ends of the ala strap. The rein is of two types: the main rein--the tojon poboduok [Fig. 9k]--and the outrunner rein [Fig. 9L]. There is usually only one main rein on any team; this is terminated on both ends by loops or wooden buckles, and it connects the outermost reindeer on one side of the team with the outermost reindeer on the other side of the team; the outrunner rein is half as long and it connects the center outrunner reindeer [Fig. 10] to the sled; one outrunner rein is necessary for each out-
233 runner reindeer. The reins pass between the hind legs of the rein-
401 deer and run through the whole system of pulleys tied to the front of
492 the sled, which are fastened on at various points, depending on the position of the reindeer in the team. On every sled there are two side pulleys situated always in the same place; these are fastened to the front ends of the runners in the following way: a strap is passed down through a special opening in the end of the left runner; the short end of this strap is passed through a second (smaller) opening in the pulley; then through this same opening the strap is passed upward again and the end of it is tied in a knot. The long part of the strap is thrown across to the end of the right runner, where there is the same kind of opening, and a pulley is tied on in exactly the same

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492 way as on the left runner, the only difference being that the end of the rope is tied to the end of the side board, or the lath called bajka--in the local Russian pronunciation "bayki" [Fig. 9r]. This strap is tied to the crossbeam of the sled in the middle, between the ends of the runners. Only the main rein is passed through the pulleys on the outward sides of the sled. Pulleys for the simple reins of the reindeer between the two outer reindeer of the team are located between the two pulleys on the extreme outboard sides of the sled in all possible combinations, depending on the position and function of the reindeer which are fastened to the sled. Where the team consists of only two reindeer, only the two outboard pulleys and one main rein are used; where there are three reindeer in the team, three pulleys are used; where there are four reindeer in the team, five pulleys are used; where there are five reindeer, seven pulleys are used; six reindeer require nine pulleys; and eight reindeer require seven pulleys [Fig. 9L, 2, 3, 4, and 5]. The last type of team is very rarely used; for the most part it is used in the summer when a boat is being transported during a nomadic trip. In this team arrangement only the main reins alone are used; one main rein is run from each of the four reindeer which make up the second rank, and the ends of these reins connect the reindeer in pairs [Fig. 9d--k].

The pulleys called tooldo or celaak are made from reindeer horn or from wood, and are of two types: the cargo pulleys [Fig. $9m_1$], which are the more massive, and the pulleys for light riding [Fig. $9m_2$], which are [194] thinner. They are usually different in their forms, varying from an irregular rectangle to a diamond in shape. The cargo pulleys and the outboard pulleys each have two large openings: one of these is wide, and it is for the main rein; the narrow opening is for the rope which fastens them to the ends of the runners. Both of the openings are made large on the middle pulleys, since the simple rein is tied to the upper opening and the main rein passes through the lower opening. An interesting type of pulley is that with five narrow openings; it is made that way so that in case the pulley breaks off at the first opening the rein can be passed through the second opening; in case the pulley breaks off at the second opening the rein can be passed through the third opening, and so forth. This saves the natives from having to make a new pulley while on a trip--a job which is not especially pleasant in cold weather [Fig. $9m_4$]. If one has only pulleys with one large opening and he has to harness up more than two reindeer he ties the pulleys

233 together in pairs and thus obtains the equivalent of one pulley with
401 two large openings [Fig. 9m].
492 This method of harnessing the reindeer is quite convenient thanks to the system of pulleys: each of the reindeer pulls an equal share of the load, and a contributing factor here is the fact that going from right to left the reins of the reindeer get progressively shorter
[531] [Fig. 9A]. The ala strap and the girth of the dressharness are covered with red or green cloth and decorated with varicolored glass beads, or else the parts made of reindeer hide are decorated with designs sewn with thread made from reindeer tendons. The cargo harness is much simpler: it consists only of an ala strap, which is canvas for the most part (made from sacks), and there is no girth at all. Usually there is no halter either; the reindeer are tied by their necks to the back of the front sled. There are either two or four reindeer in a cargo team and when there are four each pair of them has only one neck-rope [Figs. 8C and 9N]. We think it is helpful to reproduce a special drawing [Fig. 10] in order to introduce a simplified description of the terms used by the local Russian speakers for the parts of the sled.

493 Reindeer sleds among the Dolgan can be separated into five types: 1) Bytej s'rga, or olok s'rga--the "covered" or light sled [Fig. 11]; 2) 'raak'--"iraka" in the local Russian pronunciation [Fig. 12]; 3) setii s'rga--the cargo sled, or the sled "which is lead" [Fig. 13]; 4) tard'' or turku--the cargo sled [Fig. 14]; and 5) turkucaank', or little turku [Fig. 16].

[783] The "covered" sled is used exclusively for light riding; in the Noril'sk Rayon only the women ride on them--the men consider this a profanation for themselves, since after a trip on a female sled it would be necessary for them to cross over the path of the shaytany--the household spirits--or of a wild animal, which is considered to be unclean. In other regions this rule is not observed; there men too ride on "covered" sleds. The "covered" sled is distinguished by high legs forty-five to fifty centimeters long, of which there are five, eight, twelve, or fourteen on one sled. These legs are slanted toward the back of the sled, and they are mounted in such a way that they are farther apart from each other at the bottom than they are at the top [Fig. 10]. This is done so that the considerable height of the body of the sled will not make the whole sled unstable and allow it to turn over. Such a construction is also convenient in that it allows a person sitting in the sled to stand with his feet on the runners, which stick out beyond the line of the so-called "bayka," in

54: Popov--36 E-3 (no date) 1935 Yakut
Dolgan
[facing p. 192]

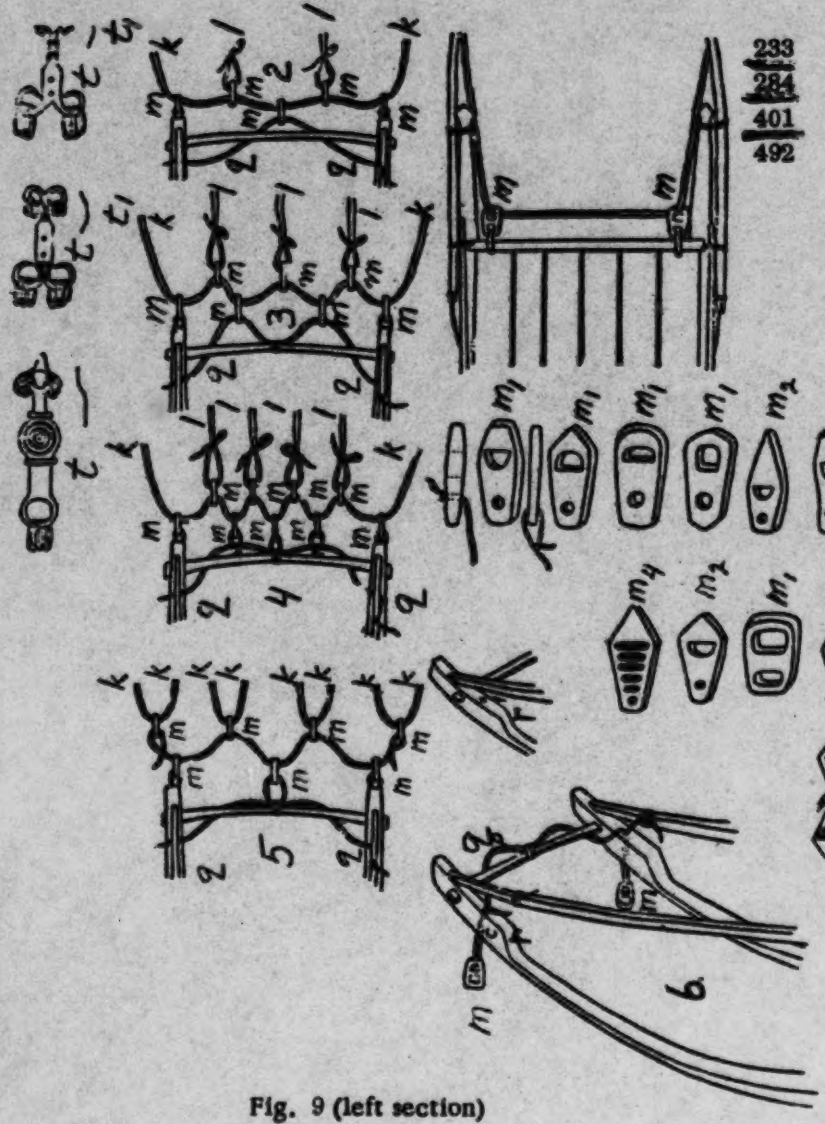

Fig. 9 (left section)

54: Popov--37 E-3 (no date) 1935 Yakut
Dolgan
[facing p. 192]

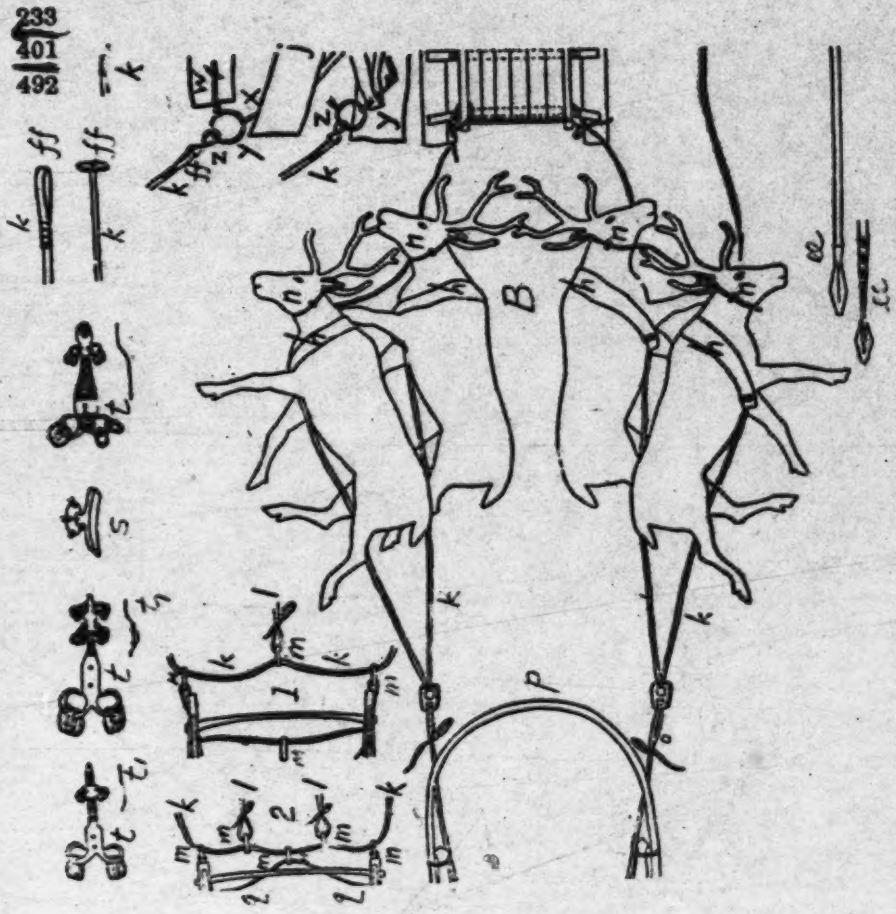

Fig. 9 (middle section)

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284
401
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Figure 9

A -- light harness
c -- lead reindeer
d -- outrunner reindeer
f -- halter on the lead reindeer
f -- halter on the outrunner reindeer
g -- thongs connecting the reindeer
h -- ala-straps
i -- thongs holding the ala-straps in place
i_1 -- loops to which are tied the thongs which connect the reindeer
j -- girth
k -- main rein
l -- outrunner reins
m -- pulleys for the reins
m_1 -- cargo pulley
m_2 -- pulleys for light sleds
m_3 -- fastening together of two pulleys in the absence of one pulley with two broad openings
m_4 -- pulley with emergency openings in case of breakage
n -- neckcord for a cargo reindeer
o -- rein for a cargo sled
p -- rose-willow arch
q -- straps to which are tied the side pulleys and the supplementary pulleys of the light sled
c -- reins
b_1 -- "Khorey" (h--small bone circle; aa--strap headband; ee--iron spear)
r -- openings in the ends of the runners for the straps of the side pulleys and the supplementary pulleys.
s -- bone hook for supporting the rein
t -- metal hooks for supporting the reins
t_1 -- side view of the hooks

B -- Cargo harness
D -- Detail of the Yurak harness
u -- loop to which is attached the cord from the girth

233 v -- cord running from the girth
284 ff -- end of the rein with a wooden buckle, and with a
401 loop instead of a buckle
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Detail of the Dolgan harness

bb, z, cc -- iron hooks and buckles through which is passed the end of the rein

y -- iron ring

w -- thongs by means of which the iron ring is fastened to the girth

Ways of arranging the pulleys

1 -- with three reindeer

2 -- with four reindeer

3 -- with five reindeer

4 -- with six reindeer

5 -- with eight reindeer

6 -- front end of a light sled with side pulleys